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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,256	11/26/2003	Henrik Icking	10808/115	6057
48581	7590	01/12/2006	EXAMINER TAN, VIBOL	
BRINKS HOFER GILSON & LIONE INFINEON PO BOX 10395 CHICAGO, IL 60610			ART UNIT 2819	PAPER NUMBER

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

BJC

Office Action Summary	Application No. 10/723,256	Applicant(s) ICKING ET AL.	
	Examiner Vibol Tan	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/29/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the time constant in which is less than the minimum period occurring in the digital signal must be shown in a timing chart or the feature(s) canceled from the claims 10 and 20. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next office Action. The objection of the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

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2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 4, 6, 7, 9, 10, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3 and 4, it is not clear if an increase signal recited in line 2, different or the same increase signal that has been previously recited in claims 1 and 2.

Clarification is necessary.

In claim 6, it is not clear if a capacitor in line 2 is the same or different capacitor that already has been recited in claim 1. Clarification is necessary.

In claim 7, it is not clear if a driver stage with a current, different or the same driver stage with a current that has been recited in claim 1 in line 3. Clarification is necessary.

In claims 9 and 19, it is not clear if a capacitor recited in line 6, the same or different than the capacitor previously recited in claim 1. Clarification is necessary.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2819

4. Claims 1-4, 6-9, 11-14 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (U. S. PAT. 4,264,872).

In claim 1, Suzuki teaches all claimed features in Fig. 2, a method for outputting a digital signal, the method comprising the steps of: supplying a driver stage (Fig. 2) with a current via a positive (via resistor 14) and a negative current (via resistor 14) supply connection; limiting the current to a current limit value (a predetermined value) via a positive and/or negative current supply connection (14 and 13 are limiting resistors); and temporarily increasing the current flowing via an output (OUT) of the driver stage in synchronization with the edges of at least one trigger signal (/IN) of the driver stage, wherein the increased current is provided via a capacitor (18) to increase the output current of the driver stage.

In claim 2, Suzuki further teaches the method of claim 1, further comprising a step of the driver stage supplying a differential output signal at two output lines (OUT, /OUT) wherein at least one of the two output lines receives the increase signal (via capacitor 18).

In claims 3 and 4, Suzuki further teaches the method of claim 1, wherein the step of providing the increase signal (amplifying signal) comprises providing an increase signal generated (the amplified signal) with a time delay (a time delay as a result of capacitance of 18 or 17 times load resistance) to the corresponding edge of the at least one trigger signal (/ IN or IN) of the driver stage; and wherein the step of providing the increase signal comprises providing the increase signal generated by an inverting (left

side of Fig. 2) or a non-inverting driver (right side of Fig. 2) which receives a control signal at its input (/ IN or IN).

In claim 6, Suzuki further teaches the method of claim 1, wherein the step of increasing the current via the capacitor (18 or 17) comprises providing a current having a voltage increase (boosting) which is greater than the voltage increase of the output signal of the driver stage (inherent).

In claim 7, Suzuki further teaches the method of claim 1, wherein the step of supplying the driver stage with the current comprises providing a constant current (15).

In claim 8, Suzuki further teaches the method of claim 1, further comprising a step of the driver stage supplying a differential output signal at two output lines (/ OUT, OUT) wherein the current flowing via the positive supply connection (via 14) and the current flowing via the negative current supply connection (via 13) are controlled such that the mean value of the voltages of the two output lines assumes a controlled constant value (15).

In claim 9, Suzuki further teaches the method of claim 1, wherein the step of supplying the driver stage with a current (inherent) comprises supplying the driver stage with current from a controllable current source (19) via the positive and/or negative current supply connection (via 13) and at least one controllable current source (19) receives an increased current via a capacitor (17).

Claims 11-14 and 16-19 correspond to detailed circuitry already discussed similarly with regard to claims 1-4 and 6-9.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki.

In claim 5, Suzuki teaches all claimed features of claim 1; with the exception of teaching wherein the step of increasing the current comprises increasing the current via a capacitor having a variable capacitance. However, it would have been obvious to one ordinary skill in the art at the time the invention was made to select a capacitor having a variable capacitance, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

Therefore; it would have been obvious to one ordinary skill in the art at the time of the invention was made to select a capacitor having a variable capacitance to replace the capacitor of Suzuki, in order to easily adjust to a desirable value of capacitance for the device, when necessary, without having to replace the capacitor.

Claim 15 is rejected for the same reasoning as claim 5.

7. Claims 3-10 and 13-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

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8. Applicant's arguments with respect to claims 1, 2, 11 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Upon further consideration and update search, a new rejection is applied as set forth in details above.

The newly applied reference of Suzuki anticipates the claimed limitations of claims 1-20, as discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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